

Large-signal model of triple-gate MESFET/PHEMT for switch applications

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A large-signal model of triple-gate MESFETs/PHEMTs is developed for switch applications. The devices are represented as multiple transistors connected in series. Systematic extraction procedure, including extrinsic parameters, is described. The model has been verified by comparing simulated dc characteristics, S-parameters and power performance of switches with measured results. As an example of applications, a feed-through circuit is simulated and preliminary experimental data supports the validity of the model.

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